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IN THE

Supreme Court of the United States

October Term, 1974.

No. 74-1033.

C. MARSHALL DANN, Commissioner of Patents & Trademarks,
Petitioner,

v.

THOMAS R. JOHNSTON,
Respondent.

On Writ of Certiorari to the United States Court of Customs and Patent Appeals.

BRIEF AMICUS CURIAE FOR THE AMERICAN PATENT LAW ASSOCIATION.

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BRIEF AMICUS CURIAE FOR THE AMERICAN PATENT LAW ASSOCIATION.

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I.

THE NATURE AND THE INTEREST OF THE AMICUS.

A. The American Patent Law Association.

This brief amicus curiae is submitted by the American Patent Law Association ("APLA")[1] under Rule 42(2) of

1. APLA's membership-at-large elects the officers and other who form APLA's 19-member governing body, the Board of Managers. The filing of this brief on behalf of APLA has been authorized by the Board of Managers and approved by its Executive Committee.

this Court. Letters from the parties' counsel, consenting to the filing of this brief, are on file with the Clerk of this Court.

APLA is a nationwide association of approximately 4,000 members including judges, law teachers, copyright and trademark lawyers, and over half the patent lawyers in the country from private, corporate, and government practice.

Unlike some specialties of law practice where the plaintiffs and defendants are often represented by predominantly separate legal fraternities, in patent law the same individual attorneys may appear as often on the plaintiff's side as on the defendant's side of patent, trademark and copyright litigation, and on either the licensor or licensee side of negotiations for licenses. By such experience and membership composition, this association is well balanced in the realities of the patent law in action.

B. Interest of the Amicus.

APLA has no interest in and takes no position with respect to the patentability of the particular invention of respondent's pending patent application. More particularly, no position is taken with respect to the issue of unobviousness of the claimed subject matter.

Amicus submits that this case should be decided in accordance with established principles of patent law. Amicus is concerned that the Government's brief tends to confuse some of these established principles.

II.

SUMMARY OF THE ARGUMENT.

A. The inclusion of a programmed digital computer in the enabling disclosure of a patent application claiming an innovation neither confers upon nor removes from that innovation the quality of being a patentable invention. Programmed digital computers are used to implement many different innovations. Patentability of these innovations should be determined in accordance with well established principles of patent law and not by sweeping pronouncements of special law developed from consideration of one or two particular cases.

B. Where the inventor's idea for an invention is novel, unobvious and in the technological arts, the idea is part of the invention as a whole and must be considered in determining the unobviousness of the invention.

C. When a patent has expired on a specific apparatus, such as a computer, only that apparatus and not patentable improvements thereon will "fall into the public domain."

D. Amicus agrees with the three-part view expressed in the Government's Reply Brief for Certiorari that recognizes "the possibility of patentability if a program co-acts with an ordinary computer in a 'synergistic' way, if the program is carried out with newly-inventive apparatus, or if a program produces a new use for an old machine sufficiently inventive to be patentable as a process." (G. Rep. 2).[2] Amicus is concerned however, that the Government's subsequently filed main brief has qualified that view so as to render it meaningless.

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2. G. Rep. refers to the Government's Reply Brief for Certiorari. G. Br. refers to the Government's main Brief.

E. The claims of a patent application are the true measure of a patent grant. The Government ignores respondent's claims and instead focuses on the alleged underlying programming idea. "Program" is not well defined in this case and the patentability of "programs" per se is not an issue. Computer technology has already advanced so far that the Government's oversimplifying "programming" analogies are meaningless.

III.

ARGUMENT.

A. The Inclusion of a Programmed General Purpose Digital Computer as Part of the Enabling Disclosure of a Patent Application Claiming an Innovation Neither Confers Upon Nor Removes From That Innovation the Quality of Being a Patentable Invention.

The first paragraph of 35 U. S. C. § 112 requires that the applicant disclose his innovation in terms which enable a skilled person to practice the invention. That is, the applicant must submit an "enabling disclosure."

The inclusion of a properly programmed digital computer as part of the enabling disclosure of a patent application cannot be determinative of patentability because computers are used to implement patentable innovations in the useful arts, and they are used to implement unpatentable innovations in the liberal arts. Digital computers are used to perform mathematical calculations, compose music, make fine arts drawings, operate factories and warehouses, refine oil, generate electric power and perform numerous other tasks.[3] No general rule can justly describe the patentability of all of the foregoing.

Nevertheless, Petitioner's first question on page 2 of its brief is based on the premise that this Court in

3. "Digital Control and Automation Systems—A look at Computer Control and Automation in Automative Manufacturing," *Computer Design*, October, 1973; "How real-time computers work in today's automatic warehousing," *Material Handling Engineering*, January, 1975; "Refinery operations controlled by double computer," *Petroleum Review* 27, 471-6 (1973); "DEH: The computer takes over turbine control," *Power*, August, 1973; "Digital Control and Automation Systems—System Measures and Sorts Green Lumber at 38 Boards/Min. with 99.5% Accuracy," *Computer Design*, July, 1974.

Gottschalk, Acting Commissioner of Patents v. Benson et al., 409 U. S. 63 (1972), held that a new idea implemented by programming an existing computer is unpatentable. Petitioner seeks extension of a decision that the method claims in that case were unpatentable to a holding that the apparatus claimed in the present case is unpatentable.

However, the only similarity between the present case and *Benson* is the presence of a general purpose digital computer in the enabling disclosure of the involved patent application.

To adopt the Government's interpretation of *Benson* and the extension thereof to apparatus claims would preclude patenting innovative machines in the arts which have hitherto prospered under the patent system.

The Government's First Question Is Based On A Fallacy Because Benson Did Not Rule Out Process Claims For All Inventions Wherein Programming Is Part Of The Enabling Disclosure.

The *Benson* patent application disclosed a mathematical technique that could best be performed by using an appropriately programmed digital computer. This Court found the claims of the *Benson* application so broadly written and so unlimited in scope as to pre-empt the underlying mathematical discovery itself. The *Benson* claims were the same type of "overweening claim" that had been struck down in *O'Reilly v. Morse*, 56 U. S. (15 How.) 62 (1853). The *Benson* claims were "not limited to any particular art or technology, to any particular apparatus or machinery, or to any particular end use" and pre-empted the "algorithm itself." 409 U. S. 63, 72.

However, the presence of a "computer" or a "program" is not determinative of whether a claim should be struck down for over-breadth as by pre-empting an algorithm. The proper test, as indicated by this Court's decisions in *Morse* as well as in *Benson*, is whether a nonstatutory "idea" such as a mathematical algorithm is being claimed so broadly that the claim is, in effect, attempting to pre-empt the nonstatutory idea itself.

The claims to the algorithm of *Benson* would have been no more or no less patentable if the process set forth in those claims had been based on a disclosure of a known wired machine or analog computer. Similarly, apparatus claims supported only by a disclosure of known apparatus acting in a known way to perform a mathematical algorithm and of such breadth as to preempt the algorithm itself are not statutory regardless of whether a "program" or "general purpose computer" is or is not included in the enabling disclosure.[4]

APLA therefore suggests to this Court that the question of the patentability of programs or of inventions based upon an enabling disclosure including a programmed computer is irrelevant to the resolution of this appeal.

B. Where the Inventor's Idea for an Invention Is Novel, Unobvious, and in the Technological Arts, That Idea Is Part of the Invention as a Whole and Must Be Considered in Determining the Unobviousness of the Invention.

Whatever the decision of this Court on the immediate issue of patentability of the invention claimed here, it is

4. One cannot look at the hypothetical Benson claim prepared by the Government and set out in Appendix D of its Petition, by itself, to determine whether in scope it is overclaiming so as to cover the algorithm itself. With a sufficient supporting disclosure showing the specific apparatus elements involved, the claim presented by the Government is a proper claim. How broadly the claim will be interpreted in an infringement situation on someone else's structure is a question of equivalency that may or may not be established in the particular facts of the case.

imperative that the rationale on page 22 of the Government's brief be discarded. The Government argues that:

> "Even when an idea is unobvious its implementation must be unobvious, as well, to justify the grant of a patent monopoly, whether the implementation involves a process or a product." (G. Br. 22)

The brief further states that the "means or mode of implementing the idea must extend beyond the routine, conventional or obvious applications of the idea that follow once the idea is known." The argument is completely contrary to the established principle, codified in 35 U. S. C. § 103, that the invention as a whole must be considered in determining patentability.

Does the Government contend that the inventor's idea is prior art to the apparatus or process for carrying it out? That this contention is antithetical to the law of patents is to be noted from the thousands upon thousands of patents granted on electrical, mechanical and chemical inventions in which the way of implementing the idea is perfectly clear from the idea itself.

This Court, in *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U. S. 45 (1923), treats one facet of the question. There the patentee discovered that wrinkling and malformation of paper in a paper making machine occurred because the stock did not flow fast enough at a critical point in the process. Eibel simply increased the pitch of the path of the stock to take advantage of the force of gravity to increase the flow rate. This Court held the patent valid, deciding that the patentee had made a patentable contribution in discovering the problem even though the solution was deemed to be routine. Certainly in the *Eibel* case the "invention as a whole" was considered in determining patentability.

Since at least as early as the *Eibel* case, the "invention as a whole" has been referred to in determining patentability.[5]

The Government's brief obscures the issue in its faulty analysis at page 22 of its brief. There are at least three distinct situations involving an idea and its implementation, and the Government has chosen to see only two of them. Basic to an understanding of the misconception that can result is the distinction between "obviousness" and the constitutional consideration requiring that the invention relate to the "useful arts."

The first situation is where the idea does not directly relate to the useful arts and the implementation is claimed so broadly as to cover all uses of the idea or is claimed so as to cover the obvious uses of the idea. Ideas not directly related to the useful arts include recognition of a law of nature or a mathematical algorithm. For this situation, patent coverage is not permitted. Examples of this are *Benson, supra,* and *Funk Bros. v. Kalo Inoculant Co.*, 333 U. S. 127 (1948).

The second situation is where the idea is not directly related to the useful arts but the implementation of that idea is claimed to cover unobvious mechanisms or processes in a useful field. Then patent coverage is possible, *Mackay Radio & Telegraph Co. v. Radio Corporation of America*, 306 U. S. 86, 94 (1939). In this situation the "patent monopoly may be granted, not on the idea, but on the inventive process or product." (G. Br. 24).

The third situation, totally ignored in the Government's brief, is where the idea relates to the useful arts

5. See also, *Trio Process Corporation v. L. Goldstein's Sons, Inc.*, 461 F. 2d 66, n. 18a (3 Cir. 1972); *In re Aufhauser*, 399 F. 2d 275, 277 (CCPA 1968); *In re Conover*, 304 F. 2d 680, 683 (CCPA 1962); and *In re Roberts and Burch*, 470 F. 2d 1399, 1401 (CCPA 1973).

and is unobvious. It must then be considered as part of the "subject matter as a whole," 35 U. S. C. § 103. In this situation it is erroneous to give weight to the obviousness or unobviousness of the *implementation*. The *Eibel* case, *supra*, is in point. There, having analyzed the problem in terms of an unobvious idea or discovery, the implementation was obvious, but the patent was upheld in view of the unobviousness conferred through the discovery.

The Government in its brief has created the possibility for considerable mischief in the patent law by improperly expanding the limited holding of *Funk Bros., supra*, to produce a rule of law that encompass all inventions, not only those directed to natural phenomena.[6]

The fallacy of the broad pronouncement that in all instances the means of implementing an idea must be unobvious can be seen from this Court's decision upholding the patent in *U. S. v. Adams*, 383 U. S. 39 (1966). Here, again, the implementation required only ordinary skill, but it was the idea that imparted patentability to the claims in the Adams patent. As this Court stated in *Graham et al. v. John Deere Co. of Kansas City et al.*, 383 U. S. 1, 32 (1965), it is the invention as a whole that must be viewed in determining patentability and the whole encompasses both conception and implementation.

It may not be clear whether the Government intended this sharp redirection in the law of patents, but it is certain that destructive violence would be worked on the statute and on the patent system itself should the Government's "rationale" be adopted by this Court.

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6. The Court of Appeals in *Armour Pharmaceutical Co. v. Richardson-Merrill, Inc.*, 396 F. 2d 70, 74, read the opinion in *Funk* to lead to "the test of patentability of a natural phenomenon" and not to a test of patentability for all inventions, as stated by the Government in its brief.

C. When a Patent on a Specific Apparatus, Such as a Computer, Has Expired, Only That Apparatus and Not Patentable Improvements Thereon Will "Fall Into the Public Domain".

The Government has noted two truisms in patent law but it has to come to a conclusion not supported by either truism, by any logic or citation of authority. First, the Government has noted (G. Br. 35) that when a patent expires its subject matter falls into the public domain. Second, the Government has noted (G. Br. n. 27) that an inventor of a machine is entitled to the benefit of all uses of that machine. However, it is a complete non-sequitur to go from these two basic statements to the Government's contention that all inventive improvements utilizing a previously patented computer must fall into the public domain with the demise of the first patent on that computer.

The obtaining of a patent on a machine does not prevent others from obtaining patents on unobvious improvements on the machine, on an unobvious combination incorporating the machine as one element of the novel combination, or on new and unobvious uses of the machine. Such later patents are permitted under 35 U. S. C. §§ 100-103 whether that machine is the subject of an expired or unexpired patent or had never been patented.

When a patent expires the invention which is claimed in that patent falls into the public domain. By refusing throughout its argument in this case to consider patent claims, the Government has failed to distinguish between the claimed invention of a patent and the commercial equipment which incorporates that invention and brings the invention to the market place. That which is claimed in the patent falls into the public domain on the expiration of the patent. Whether or not the commercial equipment

also falls into the public domain is dependent upon whether other valid and unexpired patents are applicable to that specific equipment.[7]

A patent on an improvement invention does not withdraw from the public its right of free access to materials already available (G. Br. 36). The public's access to the unimproved apparatus, here the computer, is in no way impaired by patents that may issue on novel improvements to that computer. Only the public's access to the improvement invention is temporarily subject to the patent, but that improvement invention is perforce not already available within the public domain.

An improvement which is truly unobvious may merit the praise accorded by this Court to Eibel's paper-making invention:

> "His was not a pioneer patent, creating a new art; but a patent which is only an improvement on an old machine may be very meritorious and entitled to liberal treatment. Indeed, when one notes the crude working of machines of famous pioneer inventions and discoveries, and compares them with the modern machines and processes exemplifying the principle of pioneer discovery, one hesitates in the division of credit between the original inventor and the improvers; and certainly finds no reason to withhold from the really meritorious improver, the application of the rule 'ut res magis valeat quam pereat' which has been sustained in so many cases in this Court." (261 U. S. at 63)

7. There are proper aspects of the problem of the "second and further partial monopoly" (G. Br. 35) where a second patent is obtained on a product already the subject of a prior patent. In *Brulotte v. Thys Co.*, 379 U. S. 29 (1964), this Court had before it a situation where seven patents were incorporated into the licensed machines. The Court held that it was improper to collect royalties "which accrued after the *last* of the patents incorporated into the machine has expired," 379 U. S. 30 (emphasis added). According to the argument presented by the Government in this case, the collection of royalties after the *first* of the patents incorporated into the machine had expired should have been illegal.

The Government's brief suggests that a patent on a novel and unobvious improvement of apparatus previously patented by someone else should be invalid, per se, as an extension of the first patent. The proper question has always been whether the improvement is obvious or unobvious under 35 U. S. C. § 103 in view of the prior patent and all other pertinent prior art. It is interesting to note that under the Government's view one would never reach the § 103 issue if there is a prior patent, expired or unexpired, which discloses the apparatus on which the present invention is an improvement.

When the patents covering the computer used to implement respondent's invention herein expire, the claimed subject matter of those patents will fall into the public domain. But there is neither reason nor authority to support the Government's ill-founded contention that all patentable improvements of such computers, whether machine or process inventions, and whether or not involving programming as part of their enabling disclosure, must also fall into the public domain.

D. An Innovation in Digital Computer Programming May Be Patentable if the Program Co-Acts With an Ordinary Computer in an Unobvious Way, if the Program Is Carried Out With Newly Invented Apparatus or if the Program Produces a New Use for an Old Machine Sufficiently Inventive to Be Patentable as a Process.

APLA submits that the foregoing statement requires nothing more and nothing less than an analysis of the type set forth in *Graham v. Deere, supra*. Though it is a

difficult analysis, it has, nevertheless, been carried out with only minor variations since the time of Thomas Jefferson, as set forth in *Graham v. Deere*.

The Court has been asked to make such an analysis under 35 U. S. C. § 103 in the present case. Amicus expresses no opinion on the issue of obviousness except to point out that all inventions, including those in which a programmed computer is included in the enabling disclosure of the invention, must be measured by the same statutory standards including 35 U. S. C. § 103.

Amicus disagrees with the Government's view (G. Br. 14) that the questions of statutory subject matter and obviousness are "interrelated." These are separate questions and should be decided in the sequence which would best serve public policy and judicial economy. Whether an invention is obvious or not can have no bearing on whether the subject matter of that invention is or is not statutory. If this were not true, an invention might be "statutory" at its creation, but rendered "non-statutory" rather than merely "unpatentable" after it had passed into the public domain. But "statutoryness" has never before been thought to be a simple function of the passage of time. Accordingly, "obviousness" and "statutory subject matter" are quite separate, independent and *not* interrelated questions.

Although Petitioner argues that the innovation in the instant application is obvious under 35 U. S. C. § 103, Petitioner recognizes the possibility of patentability in other cases if the program co-acts with the computer in an unobvious way (G. Br. 29). The head-note of this section is a statement from the Government's Reply Brief for Certiorari, p. 2.[8] Although that reply brief recognizes

8. In paraphrasing the Government's position, APLA has used the term "unobvious" instead of "synergism" since the former term appears in 35 U. S. C. § 103.

the possibility of patentability if a computer program produces a new use for an old machine, in its main brief the Government asserts that a new use of a computer is not patentable. The Government argues that this Court in *Benson* held process patents unavailable for inventions involving programs for general purpose digital computers and extends this "holding" to new uses for such computers which must be claimed as a process (G. Br. 27). The fallacy in Petitioner's changed position is that this Court did not hold process patents unavailable for *all* programming related inventions as previously discussed. The question of new uses was not an issue in *Benson* nor is it an issue in the present case.

E. The Government Has Misused Established Principles of Patent Law in Failing to Focus on the Claims and Has Failed to Define Properly the Terms Used.

The claims of a patent are the measure of the patent grant, *Graver Tank & Mfg. Co., Inc. v. Linde Air Products Co.*, 336 U. S. 271, 277 (1949), *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., Inc.*, 365 U. S. 336, 339 (1961). The Government appears to dismiss that which is claimed as nothing more than a mere matter of form. It characterizes claim language as "inventive semantics" (G. Br. 29). The Government focuses on the "monopoly on [the] *idea* that respondent seeks" (G. Br. 11); respondent's "programming idea" (G. Br. 13); respondent's "alleged inventiveness or novel discovery" (G. Br. 17); and respondent's "alleged invention" (G. Br. 18) without coming to grips with what respondent has claimed. What has been claimed by respondent must be examined as it was examined in *Benson*. The *Benson* decision was not one based on the mere "format" of the claim but, on the contrary, it was based on the entire context of the claims.

In trying to make the complex sound simple, the Government has drawn several misleading analogies. For example, it has argued that "[s]imply put, the difference between a general purpose digital computer . . . and a fixed wire computer is like the difference between a player piano and a music box, respectively." (G. Br. 16). The analogy is wrong for a number of reasons.

The technology has advanced to the point where most of the Government's distinctions between the fixed wire computer and the general purpose digital computer are obsolete. Examples of this include "minicomputers" and "microcomputers," machines which have the attributes of both general purpose and fixed wire computers.

"Minicomputers" are much smaller than the IBM 1400 disclosed in respondent's patent application.[9] Because of its relatively low cost, the minicomputer has found wide application as a substitute for mechanical, electromechanical, analog electrical and digital electrical systems commonly used in industry. Once the minicomputer is programmed to serve a particular function in an industrial system, the program usually remains unchanged. The minicomputer effectively becomes a special purpose computer, and performs like the fixed wire computer referred to in the Government's brief. The choice of whether an innovation should be embodied in a programmed minicomputer or in a fixed wire computer often turns on economic considerations.[10]

More recently, another form of general purpose digital computer has become commercially available which is smaller and lower in cost than the minicomputer. Aptly

9. "Minicomputers that run the factory," *Business Week*, December 8, 1973; "Now minicomputers run machine tools," *Business Week*, August 12, 1972.

10. "Hard-wired numerical controllers yield to efficient minicomputers," *Electronics*, April 12, 1973.

termed "microcomputers," these machines are formed by combining a semiconductor read-only memory with an integrated circuit microprocessor.[11] The read-only memory has components which may be embraced within the volume of a postage stamp and which may contain tens of thousands of items of information. It performs all of the functions of the changeable "core" program storage unit of conventional digital computers. Changing the "program" in a machine using a read-only memory requires insertion of a physically different memory element. This is a rearrangement of parts into a new combination. Combinations of physically different parts causing a machine to exhibit a new, useful and non-obvious "rule of action" have always been recognized as giving rise to patentable invention.[12]

The music box, player piano analogy is not applicable to programmable digital computers for another reason. Every machine is characterized by its rule of action which resides within the machine itself. Robinson, *The Law of Patents*, §§ 173 and 175 (1890). Machines that are different can be characterized by the different rules of action

11. "Microcomputers—Evolutionary successor of the minicomputer, the microcomputer is a set of microelectronic 'chips' serving the various computer functions. It has opened up new realms of computer applications," *Scientific American*, May, 1975; "Computers: First the Maxi, Then the Mini, Now It's the Micro," *Science*, Vol. 186, December 20, 1974; *IEEE Transactions on Industrial Electronics and Control Instrumentation*, Vol. IECI-22, No. 3, August, 1975, pp. 290-360; "News Scope—$15 microprocessor coming for simpler applications," *Electronic Design*, August 16, 1975; "Microprocessor Sparks a Quiet Revolution in Instrumentation," *Electronic News*, Vol. 20, No. 1039, August 4, 1975; "Microprocessors & minicomputers: what will the future bring?", *EDN*, November 20, 1974.

12. The Government (G. Br. 15) acknowledges that by using a different program in a computer "the configuration of its circuitry can be readily changed." Such new and unobvious configurations of circuitry have always been within the scope of the patent statutes.

resident in each. The rule of action of a music box is to have its steel comb plucked by the spikes set into its rotating drum; the rule of action of a player piano is to have its keys actuated according to the pattern of holes punched in its paper roll. Each type of machine plays the "music" by slavishly striking the note identified by the spike on the drum or the hole on the paper. Though each machine can be characterized by more detailed rules of action spelling out its particular distinctive instrumentalities, both machines can be characterized on a broader level, by the common rule of action: "strike the identified note." Thus, when a "new" drum or paper roll is inserted that differs from the "old" drum or paper roll solely because of the musical significance contained, the "rule of action" of neither machine is changed. Though there might be an advance in the art of music from a paper tape of "Chopsticks" to a paper tape of a Sousa march, the change is not in the rule of action of the machine but only in the fine art of music.

This is not the case with computers. The advent of the programmable digital computer made available for the first time a machine having a truly changeable "rule of action."[13] In the music box or player piano, only notes could be struck. The digital computer is so flexible that it can run entire chemical processing plants or make connections for transcontinental telephone conversations. For each of these different situations machines with different "rules of action" are required. In each case the "rules" are encoded in the computer memory merely by patterns of "bits." The Government wrongly asserts that these vastly different technologies differ from each other only by "the meaning one chooses to assign outside the com-

13. "Programmable devices—Your best buy in control?", *Modern Materials Handling*, February, 1975.

puter to a particular configuration of binary digits or 'bits' in its memory." (G. Br. 7, quoting the Board).[14]

From the above it can be seen that in this case both the term "computer" and the term "program" have not been well defined even though they are central to the Government's argument. The Government (G. Br. 15) notes that there are systems programs and application programs and then indicates that it is the application program that "is generally denoted by references to computer programs in common parlance." Their brief then assumes that one is only talking "in common parlance."

Amicus CBEMA in its brief (n. 3), also discusses systems programs and applications programs but considers that a system program is "an integral part of the computer." APLA concurs and considers that a computer is a unique combination of electrical components interconnected by that "integral part," the requisite programs that determine the basic operations, the "rule of action" of the computer.

The rule of action may be permanently incorporated or wired into a machine; it may be permanently but alterably incorporated, as by the use of the semiconductor read-only memory; or it can be transiently incorporated, as by reading into a memory certain bit states for the elements of that memory. A "fixed wire computer" and a "general purpose computer" (G. Br. 16) are again undefined terms.

14. A programmable digital computer has more than a mere array of "notes" which may be struck for each binary "bit" in its memory unit. It typically has a whole array of otherwise unrelated logic devices and peripheral units which are organized only when the "program" is loaded and run. Unprogrammed, the machine has been correctly analogized to a mere storehouse of parts. Applying the *Robinson* criteria, an unprogrammed computer has *no* rule of action or at best only a simple rule of action which makes it capable of interacting with a program which is fed into it. This is the correct import of the Bernhart "doctrine," (G. Br. 33) which is more accurately a statement of technological fact than a legal doctrine.

Both terms can apply to a digital computer (contrary to the implications of footnote 14, G. Br. 15). And both terms can apply to a computer with a read-only memory. By speaking "in common parlance" the Government confuses, not clarifies, the issue.

IV.
CONCLUSION.

The Government's first question (G. Br. 2) assumes that *Benson* held process patents unavailable for all programmed operations of a computer. This assumption is erroneous and cannot be the basis for the sweeping pronouncement of unpatentability of programmed apparatus which the Government propounds.

By this question and other statements in its brief the Government confuses, not clarifies, the issues. The legal principles to be applied are not dependent on the presence or absence of programming in the enabling disclosure.

The question of the patentability of programmed machines and programmable processes should be dealt with in the same way as with identical questions that would arise with any other types of machines or processes.

The inventor of a new, useful and unobvious process or apparatus should not be deprived of the incentives of the patent statutes merely because his invention uses program control in its implementation.

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